ABSTRACT

CARRIER CONSTELLATION INFORMATION IN MULTI-CARRIER SYSTEMS

In a multi-carrier system, the carriers (f_0 ... f_{511}, f_{512} ... f_{1023}, ..., f_{3584} ... f_{4095})
are grouped in subsets (SUBSET1; SUBSET2; ...; SUBSET8). A constellation
information transmitting arrangement (BiGi_TA), for instance located in the
multi-carrier receiver (RX), produces for each carrier subset (SUBSET1;
SUBSET2; ...; SUBSET8) a limited set of parameter values (B1, G1; B2, G2; ...;
B8, G8) and transmits these sets of parameter values (B1, G1; B2, G2; ...; B8,
G8) to a constellation information receiving arrangement (BiGi_RA), for
instance located in the multi-carrier transmitter (TX). Through interpolation of
the limited set of parameter values (B1, G1; B2, G2; ...; B8, G8) the latter
constellation information receiving arrangement (BiGi_RA) determines the
constellation where each carrier (f_0 ... f_{511}, f_{512} ... f_{1023}, ..., f_{3584} ... f_{4095}) of a carrier
subset (SUBSET1; SUBSET2; ...; SUBSET8) will be modulated with.